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ABSTRACT

The paper looks at purposes of educational assessment of children with learning disabilities, assessment of the whole child, the plan for an assessment battery, the nuances of carrying out the assessment, and communication of the results to maximize appropriate follow up. Assessment purposes identified include screening, determining eligibility, and program planning. The importance of assessing the whole child--physically, intellectually, emotionally, and socially--is emphasized, and specific instruments are suggested to assess each of these areas. The assessment battery should be chosen for its usefulness in developing an educational plan. A sample language evaluation would examine spoken versus written language, and the student's use of phonology, morphology, and syntax. Guidelines for assessing reading and mathematics are discussed as are appropriate tests. Also briefly discussed is public versus private assessment and the importance of presenting the assessment report from a proactive position of helpfulness both to the parents and to the student. Numerous references to a handout with key points and examples of student assessment problems are included in the paper and the handout itself is appended. (DB)

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# EDUCATIONAL ASSESSMENT

# A TOOL TO ENHANCE EDUCATION

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I'd like to welcome you all to the session on Educational Assessment this afternoon. Those of you who have worked with the learning disabled are well aware that there are as many varieties of disabilities as perhaps the number of people that are in this audience today. When our clients come to see us as therapists, diagnosticians, or educators, they bring along with their deficits a whole host of strategies and compensations which they have employed to make their learning lives easier. Some of these strategies are successful and should continue to be used. Others, however, are not so successful and should be discarded. Our clients and their families also come to us with the hope that we will set them on the right track, that we will help them to pursue the most effective educational plan. Unfortunately, if we don't do our jobs well, instead of considering us as the ones who have failed, all too often the children and adults that we service feel that they are the failures again. It is therefore essential that we have as much knowledge about our clients as possible to help them maximize their learning potential. To achieve this end, the assessment with the most suitable diagnostic tests, prudent decisions, and clearest communications to parents, teachers, and children is essential.

Today we are fortunate to have two experts in the field to discuss this issue with us. Dr. Gloria Tannenbaum is an Educational Therapist and Learning Consultant in Ossining, NY. She's an adjunct faculty member of the College of New Rochelle. Dr. Tannenbaum holds a Ph.D. in Educational Psychology from Fordham University as well as a Masters degree in Education and the Teaching of Reading from Lehman College. Dr. Tannenbaum is certified in Special Education, Learning

Disabilities, and Reading. Dr. Samuel Fleisher is a Special Education teacher in Cold Spring Harbor Central School District. He is an adjunct faculty member of Long Island University and has a private practice in Great Neck, NY. Dr. Fleisher has an Ed.D. from Teachers College, Columbia University, as well as Advanced Certification in Language Disorders from Yeshiva University. Dr. Fleisher's certifications are in Special Education, Educational Administration, and he serves as an Impartial Hearing Officer for the Committee on Special Education in New York State.

Education is an art as well as a science. Assessment is a particularly important part of that art. One can spend a few hours with a child (and we're going to say child but we're really talking about all ages, from the very young child through adult) and then look over various information and develop insights and awarenesses about that person that are more keen than some about people known for many years. The challenge as well as the excitement is to use that knowledge to make plans that may affect that child for a lifetime.

Here is a brief overview of the following paper: first, a definition in terms of purposes of assessment, assessment of the whole child, the plan for an assessment battery (which means goals), the nuances of carrying out the assessment, and the communication of results so they are useful in developing a plan for follow-up.

Assessments done outside the schools may have different implications than those done in the schools. We'll discuss both kinds of assessments.

When we talk about purposes of educational assessments, we can look at many of the classic textbooks on assessments and find an

inventory of those items. Sometimes we view those items, those purposes of educational assessment, a little cynically. We read the statements of the authors and then we think of the impracticality of those statements in relation to the public school system.

The first purpose related to educational assessment is screening. Basically, that involves the quick insights that determine whether the student has a potentially educationally handicapping condition.

The second has to do with determining eligibility for services. An educational diagnosis of a student is really one small piece of what determines types of services and the needs of a student. We caution educational therapists and evaluators about looking at the bottom line of their reports and saying "This is exactly what the student needs" without having contacted the school and without having perceived what all the services are -- basically, making a statement like that in a void. We will be talking about being a proactive person who can obtain services for this student in a public school setting as well as being a person who can create an evaluation of this student's strengths and weaknesses.

One issue regarding program planning is that many times educational evaluations seem to lack precise statements about what it is that the student needs. An evaluation may include the percentile or grade level that the student is performing at in Reading or in Math along with a brief blurb. However, if that's the extent of the evaluation, the student will have to be reevaluated by his receiving teacher. The teacher will have to task analyze the skills the student has to determine where he can go from here. It's very important to detail a neat sequence of remedial steps for the student.

Many times, a report may include a specific way to monitor the student's progress. For instance, if a particular reading test was administered for the evaluation, that same test may be suggested as a posttest. However, sometimes remedial techniques may not match the initial assessment instrument that was used to get the type of service that you are providing. Therefore, we would caution against using any one particular instrument both in the pretesting situation and as a recommendation for the posttesting situation. It is really very limiting because the student is going to be exposed to so many critical issues in learning that go above and beyond just the remedial instruction the student is getting. It wouldn't be fair to the student, the parents, or you to have the student judged just by one test instrument.

In the '60s and '70s, we were stuck looking at just the perceptual functioning of the student and task analyzing the student's functioning. When we looked at evaluating progress, we just looked at the student. However, today we are really looking more at evaluating ourselves and evaluating our instructional capacities and trying to see if our instructional techniques are doing the student justice. An educational evaluation should focus the teacher's attention on being open to different kinds of remedial techniques that might be appropriate. Therefore, when assessment comes at the end of remediation, one can ask, "Was that technique effective for the student?" rather than whether the student was able to handle the information or didn't make progress.

No one would argue with what has been said about percentiles or grade levels, but when you are dealing with the CSE, you frequently need numbers so you can establish "50% discrepancy", "severe

discrepancy", for learning disabilities. What we often do is give the numbers that are needed to the teacher but then share the raw data as well. Give her or him the particular reading tests that were used and let her see exactly what the child could and could not do. Sometimes she can develop a diagnostic prescriptive program from the raw data.

We like to look at the whole child and the mnemonic for this is "PIES". You want to look not only at Johnny the Reader or Johnny the Talker but the child's entire make-up: Physically, Intellectually, Emotionally, and Socially. Physically, if we're talking about younger children, look at the size of the youngster, the birthdate, and the sex. All those things do make a difference in decision-making. Also, look at fine-motor skills. Tests to use include Bender, Beery, Slingerland, or parts of the Detroit. Give thought to gross motor too in case the child needs work in that. So you're looking at how the child comes across physically and what he or she is able to do.

Intellectually, or cognitively, the major components are some intelligence testing that have either been done or will be done by the school psychologist. Most likely, they will be the WAIS or WISC or WPPSE. Some are using Kaufman, but it seems to be pretty much still the Wechsler. Then, in Intellectual there are also the academic factors -- reading, writing, math, language. Language is a critical part of the intellectual development.

For the Emotional aspect, one choice is Burke's Behavior Rating Scale. There are 78 statements about a youngster and they're rated from 1 to 5. It may not be ideal, but if it is given to each parent and the teacher, the evaluator can look at whether or not the teacher is perceiving the child differently from the parents. If there are

two parents, do they look at the child differently from each other? Frequently, there may be a child who the teacher describes as extremely aggressive or distractible, but the parents may not describe him that way at all. When you are testing the child, you are in a one-to-one environment and it's only one view of who the child is. There may also be information from the school psychologist. We also use observations that we make when seeing or talking to the child. For instance, does the youngster constantly say that he cannot perform tasks that he is assigned? Some children solve problems correctly, but say they can't. Some children give up easily or they just give you clues that they are feeling anxious. So we use various information from teachers, parents, and psychologists, as well as our own observations.

Socially, again the Burke's is useful, along with a developmental history and schooling background. For instance, has the child moved around a lot? You want to understand the environment. Has he been in a classroom with a substitute teacher for a good part of the year? Is he with a very rigid teacher or with an unstructured teacher? You want to get a feeling for what's going on for that child rather than concluding that the problem -- for instance, a medical problem -- lies solely within the child.

(Re: Page 4 of hand-out) One can think of testing as a travel plan. If you're deciding to go somewhere, you have to have a destination in mind. Even though the destination doesn't come right away, you have to know whether you're going to Egypt or Cape Cod in order to make your plans. Then you have to make some sort of itinerary up so you know if you're going to have some stops along the way. Then

you take your trip. In terms of assessment, think of the destination as the educational plan for the child. Are you going to give some advice in terms of screening? Will there be a CSE? You may want to judge whether the IEP is appropriate. Is the child learning according to the IEP? Are you thinking about retention? Sometimes we see high school students who want to make decisions about college. Sometimes we see college students who are not so sure about where they're at, or they want more insight into what they're doing. If the destination is the person's insight, that's very different from a situation in which the person is going to be classified or is going before the CSE. Part of that destination is also getting an accurate perception of the child -- by the parents, by the teachers, by you, and by the child. Even first graders who are aware and perceptive but are not doing so well are aware they are not doing so well and are beginning to feel kind of "dumb". If the child can come out of an assessment with some feeling about what he may be good at -- "I'm really not so great at math or my numbers may not look good, but boy I am terrific when I tell people things" -- that's important. We should not misjudge the respect we have for the child's intelligence.

So, with your destination in mind, you can plan your itinerary, which is choosing a battery. There may be things you will change as you go along. Are you going to take the turnpike or the sideroads? The turnpike may be something like the Woodcock-Johnson, where you can zing into one test and go through subtest after subtest and you'll certainly come out with information. Maybe you want to start with looking at the child in terms of language and branch off from there. Part of the itinerary also will be gathering the data. We like to get a longitudinal view of the child, which we usually do by looking at

school records from day one as well as the history. You get a ninth grader who isn't doing his homework and is disorganized. His parents say he is beginning to cut classes, and they've never had anything like this before. You look at his records and see: first grade "he fidgets and moves around," second grade "he could try a little harder," fourth grade "Johnny is so bright. If he could only sit still and listen, he could accomplish so much more." You've really got all the history for the problem you're seeing in ninth grade. It's not so new. This could yield insights for what to do next. Part of the itinerary is also communicating results. That goes on in many phases.

Then the actual trip is administering the tests. We have battery and itinerary, but you might change things as you go along, much as you might stop at a different motel one night from the one you had planned. The test procedure includes informal observation, evaluating all the information, and developing a plan.

Many of us love to travel. Traveling through the various nuances of who the person is that you are assessing is a very exciting and goal-directed kind of process.

We're going to go into more detail about educational assessment; we'll start on some work on writing.

Turn to page 6. It's very important that the educational evaluator know the variables about the types of services available prior to jumping the gun and making a statement about CSE applicability to a student. You have the Chapter I programs, Remedial Reading services, Compensatory Education programs, and others. Every state has different call titles for them, but there are several routes that can

be taken for remediation. When you are writing up an educational assessment for a student, you shouldn't have tunnel vision in terms of just seeing CSE as an end result.

There's also the topic of drugs. Many times students are referred to CSE for educational evaluation. We know the constraints society imposes on us in terms of finding out about student activities. But we have to be aware and understand that some students may be involved with drugs. We can't jump the gun and say so, but keep it in the back of your mind as one thing that might be affecting student performance other than a strict perceptual problem or a skill deficit.

Regarding page 6, we're going to look at the different areas in which a student can be assessed, starting with the issue of writing, from four standpoints. Notice, we don't begin by naming the evaluation instruments that are out there and starting our evaluation with those instruments.

Spoken versus written language: Page 7 shows the classic example of the discrepancy that might occur. You see the student's written sample and the student's typed version of an essay on a similar topic. You'll see that the student's language functioning is quite a bit crisper when the student speaks. If we limit our assessment of the student's writing strictly to what the student performs on paper, we might be missing the boat. We might be missing the fact that the student isn't really speaking the language properly and that remediation might not have to start with the writing but with the spoken language process. We might be missing out on the fact that while the student speaks, he or she is really eliminating sounds within words, not forming closure with certain sentences. Why work on

written language when the nature of the disability is really a part of the student's innate language functioning? A lot of these insights about spoken versus written language come from Dr. Dorothy Sievers, from Yeshiva University. She always talked about how we can precisely type out what the student has spoken. You can develop an ear in order to write out what the student has spoken. That becomes a skill. While the student's spoken language might be only ten or fifteen seconds, it might take you half an hour or an hour to transcribe it if you do the right type of job. You have to tune your ear into what the student is missing in his spoken language. Then you can go back and forth between the written production and the spoken production. Sometimes the hard-to-diagnose, hard-to-classify student is the student who has a subtle writing disability. If we limit ourselves to just the evaluation instruments that are out there, we might not be zeroing in on where the student's problem lies. We have to look at different ways to evaluate the student's writing, and one way is to look at the spoken language versus the written language.

Linguistic evaluation: the student's use of phonology and morphology and syntax. What is the student's working production and recognition like related to individual sounds, syllables within words, and sentence structure? Listen to the student's spoken language and then look at the written language production.

Phonology: Grapheme/phoneme correspondence. Is the student actually writing what he is saying, sound by sound? Is he recognizing the components of an individual sound? Grapheme/phoneme correspondence is basically a writing task. But you can look at it in the reverse and see if the student is recognizing visual prompts --

all the letters, all the constructs within a word -- and forming and pronouncing a word from all of those prompts.

Another way of evaluating a student's written language is to look at the student's fine motor coordination in terms of written production.

So far, we haven't talked about 50% discrepancy or eligibility for special education services. Now we have to call in the psychologist, call in the social worker. We have to look at the child in total and see where the student's intellectual functioning seems to be. If you look at the discrepancy within the student's functioning of written language, which is not the classic kind of discrepancy between intelligence and actual performance, you'll have the beginnings to write up a case. We all know that one of the hardest things to do is to find a score to help classify a student in the area of writing. You can just look at a score and you can probably pull a lot of hints in the standardized test records throughout the student's history -- for instance, in the fifth grade, the student was functioning on the second grade level in language mechanics. There's a developmental history of many types of subtle language processing deficits that were evident at different times. However, now you're painting a clearer picture of what the student has been going through in the writing process. You're beginning to write a case for the student who has a classic type of subtle written language difficulty.

(Page 7) The main point about this sample is that you must become a very aware typist, a very aware transcriber of precisely what sounds the student is missing. Make sure you have those sounds eliminated in the transcription. Make sure that if the student is speaking in rambling, run-on sentences, you do not place the periods in there

because that will not give a fair representation of the student's spoken language.

(Page 8) You see one of the classic times to use an instrument like the Detroit Tests of Learning Aptitude II -- when we want to build a case for a student who is having visual-motor integration difficulties. In this case, the student took the TOWL (Test of Written Language) and then verbalized an essay on the same topic. We generally want the topic to be exactly the same in order to show the correspondence. You're really looking for a hidden language disorder when you listen to the student speak, when you're trying to document difficulties in grapheme/phoneme correspondence or visual/motor integration. In the bottom right corner of each of the boxes, you'll see the precise type of written production the student was supposed to generate from the stimulus. You'll see that in this case, the student's visual/motor integration was way off.

(Page 9) Look at the words "introduction" and "independent" and you can see the difficulties the student had in sequencing the sounds and organizing those sounds to create the visual image of that word. By placing little dashes for each of the particular letters, one can help the student focus in a lot better. You, as diagnostician, can tap different remedial techniques while you're evaluating the student. What seems to work and what doesn't?

(Page 10) You can see classic symptoms of visual/spatial organization difficulties, fine motor coordination problems, and possible auditory processing difficulties suggested by the fact that the student is leaving out some sounds and inserting incorrect sounds. At the end of your educational evaluation, you can state that you want

a speech and language pathologist to have significant input. You are the professional who can refer the student to others who can analyze other aspects of his functioning. You can make recommendations for future follow-ups.

Interesting also, is that some youngsters who are having difficulties writing may be reading just fine. So on the standardized tests, such as the CTBS or the Iowas, they may do well. But they're not getting their reports in for Social Studies and in English they're having some trouble with book reports and, typically, aren't doing the homework. We have both been very successful in getting extra help in the schools for these youngsters who clearly show writing disorders, even though their disorders may not be apparent according to some of the numbers we typically cite.

Page 17 shows what we consider to be usually included in the battery.

(Page 5) Assessing reading is usually a major part of any assessment. We look at reading as a hierarchy, starting with the basic mechanics of reading and going on into high levels of inferential thinking. Thus, if you're starting with basic mechanics, the first issue may be decoding, just figuring out what the words are. Some tests that might be used are the Kaufman TEA or the Woodcock Reading Mastery Test. Each gives me an idea of what the child can do with words she's never seen before. What Kaufman calls decoding is really sight words. The Woodcock Reading Mastery Test - Word Attack is preferable because it utilizes nonsense syllables. Spache has nonsense syllables also. What will come out there is both what the child is able to decode and whether or not there are any residual problems such as letter reversal, sequencing problems, or adding

sounds.

The next step on the hierarchy, which is really side by side with decoding, is sight recognition. This is reading words on a list, like that of the WRAT. Sometimes psychological reports will have "Reading" and they'll have just the WRAT scores. Hopefully, all of you are aware that WRAT scores are not enough for "Reading." How does a child read words on a list when he has no context clues, nothing to go by? Oral reading will be paragraphs like the Gray Oral or the Kaufman. Most of the oral reading tests have questions that you ask, but these are not valid measures of comprehension. Just reading aloud may be anxiety-producing. Also, when you ask for comprehension of what the child has just read, you're calling on memory, and you're confounding the issue. When you're asking a child to read out loud, it's almost as if the noise of his voice in his own ears gets in the way of understanding. Thus, if we're talking of oral reading and comprehension, maybe a cloze task gives you a better idea of of comprehension. And when he's reading paragraphs, can he read more fluently and recognize words that he can't on a list? Is he using context clues? That gives you important information about language and helps you problem solve.

Regarding silent reading, one of the measures we like is the Durrell Diagnostic Reading Scale, which includes oral reading, silent reading, and listening. This test can help detect a youngster who has poor oral reading possibly due to weak phonics or poor sight word recognition, but who has far stronger language, silent reading comprehension, and use of context clues. Some youngsters have silent reading skills far beyond what the classroom teacher may realize and

this changes the possibilities for different types of effective intervention.

Also, an extremely important part of reading is vocabulary development. For an oral measure, the Peabody Picture Vocabulary Test is useful although less than perfect. For children with perceptual difficulties, the pictures sometimes really confuse them. The WISC-R has another type of vocabulary task on it, as does the CTBS, the Iowa, or the Gates-McGinity.

The Comprehensive Test of Basic Skills is a test that is commonly given by a school district. Among the subtests are vocabulary and comprehension, and frequently learning disabled youngsters do not do well on it. Since it has a time limit and a format for the IBM sheets, it may not yield a clear picture of learning progress, but parents and frequently teachers attach a lot of importance to it.

There's an issue of whether you take a timed test and note the time if you're concerned about standardization, but let the youngster go on and see what he could do if time wasn't an issue. The evaluator can then report both scores.

One issue in math in elementary school is that youngsters who have difficulty with fine motor and youngsters who have poor rote memories get to think they're no good in math. Math isn't writing numbers; math is understanding concepts. Math isn't lining up numbers underneath each other; it's understanding what addition means. Certainly, many teachers are astute in this, but it doesn't show in a lot of other things we have students do. It certainly doesn't show in standardized tests. In terms of concepts, the two tests used for elementary school are the Key Math Diagnostic Skills - Revised or the Kaufman Test of Educational Achievement. That has

both the conceptual and the written in it. There's oral give-and-take; there are pictures in it; you're not just looking at numbers. Some youngsters can do advanced mathematics in their heads when they are only in first and second grade. They may have no idea what a 3 or an X or a 2 means in a number sentence. But ask them if there's an auditorium that has eight chairs in a row and there are three rows, and they'll tell you in a moment how many chairs there are by using their fingers. They've got the concept, and that's what's important -- understanding the idea of what math is all about. These tests allow for errors. If you're looking at a child and you ask him a question and he gets the answer wrong by one digit, because he's using his fingers, that still means he has the concept. We always make note of what kinds of errors are made -- not whether the questions were answered right or wrong. Is it a lack of understanding or is it just a mechanical problem? Also, look at abstract reasoning. If you've got a WISC on a child, the Block Design and Picture Arrangement show abstract reasoning. The Raven Progressive Matrices is a good kind of test to look at understanding of abstract concepts and logical thinking and reasoning. That's what you need to do math. When you're looking at computation, it's confounded. The child's ability to do math is confounded by fine motor skills, by rote memory, by visual perception. (e.g., lining up in multiplication, going from right to left and left to right). When the child gets to division, she has to do multiplying and subtracting, and up/down, left/right eye movements. If there are perceptual difficulties, they can be real problems even though the child understands the division. One youngster understood positive and negative numbers when he literally could not do 3+2 without using his

fingers. He was an excellent mathematician; he just couldn't do the mechanics. Note here that the WISC-R Arithmetic subtest is very deceptive, particularly for learning disabled youngsters. It will often be used as an arithmetic measure. It relies heavily on short-term memory and on rote memory. By the time the question is finished, the child has forgotten what the second number was that was asked. Anyway, if he's counting on his fingers, he can't get that far. So, the WISC-R is useful, but not as a measure of arithmetic skills. Also for those of you in your schools who are using Wynroth Math, the sequence is different from the sequence on most curriculum and standardized tests. The children are doing terrifically in learning math, but not the way the curriculum builders usually have it set up. So they may be doing better than you think.

When we talked about writing a little while ago, we neglected to go over the instruments that are out there. They're all listed on page 6. We're not advocating any one specific instrument. But those instruments give you all different types of controlled ways to observe the student's behavior. Anyone can sit down and administer a test to a student if he reads through the directions and watches the time. But we're talking about assessment, not testing. We're talking about observing the student's behaviors in writing, reading, and math under a very controlled circumstance and then observing the student in a less controlled circumstance such as in the classroom.

The test that's really the godfather of all these tests in written language is the Myklebust Picture Story Language Test, which was published in the mid-1960s but you can see the history of the test in Myklebust's writings throughout the 1950s. If you're really interested in assessment, and want to see how to begin viewing a

student's written language, we recommend that as a source, available from Grune and Stratton.

Regarding the reading process and comprehension in particular, we recommend a series like the Jamestown Publisher's Comprehension Skills Series. That series has about ten different types of books with controlled readings using inferential reasoning. For instance, you have a whole book on judgment, in which the student has a short reading passage and the student has to answer questions about the judgment within the passage. There's another book on tone. That gives you another way to view comprehension to see the nuances of the written language -- what the student is picking up and what he is not picking up. That's a series you can add to your battery. Another instrument that is out of print -- but if you can find it, it's excellent -- is the Pupil Placement Test by Houghton Mifflin and it's written by Sheila Hollander. It has long passages with ten types of comprehension questions after them that will give you some idea about how the student flows with inferential reasoning and factual reasoning sequencing.

(Page 12) Regarding math, let's put basic processing aside. We don't want to take that for granted, but there's more to math than the basic processes of adding, subtracting, multiplying, and dividing. We can go into all the issues such as fine motor coordination problems and the usual issues that must be addressed. However, we're going to talk about other issues in math assessment.

The first issue is Ordering, Sequencing The Internal Clock. A typical type of math question might be: "What number comes next?" or "Which is the missing number in this sequence?" If the student is

missing one of those classic, typical questions, you have an idea as to the rhythm the student is forming in terms of using numbers and sequencing and ordering. We're task analyzing. The student didn't just get that wrong -- just didn't fill in 100 in the sequence of 25, 50, 75, __, 125. The student missed the rhythm. He may not have underlying number knowledge -- that certainly may be the issue -- but if he also doesn't fill in the 8 when he sees 2, 4, 6, _, 10, you know there's something going on with sequencing. Why do we bring this up? When you're diagnosing a student in terms of a math disability, you're always looking at one of the five criteria for a learning disability, that is, an underlying psychological processing disorder that manifests itself in math or language in writing or reading. We're task analyzing the student's performance to determine if there's something going on with the underlying psychoeducational types of processing that the student has to perform. That's one of them -- the ordering, sequencing, internal time related to math.

The next one has to do with one-to-one correspondence. For example, the student sees 7 X 1000. The answer is 7000, not 700 or 70. If the student is getting something like that wrong, imagine the difficulty this student is having in class when the teacher writes seven math problems on the board and the student has to copy the problems at his desk. He has to write the numbers, write them in the correct columns, get the answers right, and match them to the board. If the student is not doing that on an evaluation instrument that's right in front of him, chances are he's experiencing similar difficulties from the board and in performing homework. The student is not just having difficulty writing what he sees -- it's a correspondence issue. Does the student perceive that the 7 is meant

to be in the thousandths place? And that every symbol in the first line matches the second line. Does the student perceive the role of each of the symbols to create the full response? That's something for you to task analyze a little bit further.

Let us see his knowledge of vocabulary. Some of the issues also relate to students who don't have handicapping conditions, and that's fine. Maybe you'll leave here with another way to look at how students think mathematically. Look at the definition of the word "angle." There's a preciseness to that definition. "An angle has a vertex, a point. It has two legs that stem from that point that usually go off in different directions to create a spread, to create an opening." If the student isn't aware of all the different components of the definition, then the student's production of the angle symbol may be off. The student may write the angle symbol lacking closure in the visual construct. We don't know if that's so much of a visual closure issue as it is a conceptual definition issue. You have a ray that shoots out as from a gun in one direction. Starting at the point again, the second line shoots out from the gun but in another direction. If the student isn't organizing the concept and all the pieces of the definition of the word, we may be misled to to say that the student has a visual processing disorder. The student may not have understood all the components of the word "angle." That can go on with many arithmetic terms.

Now when you're looking at word problems, don't just look at whether or not the student performs them well, but look at different concepts within those word problems -- for instance, applications to real life. Is the student taking a classic basic word problem like

"Mary went to the store and bought this and this and this and how much did she pay for those items?" and putting herself into it, realizing it? The student may not be internalizing what that whole concept is all about. Is that a disability? That depends on how well the student can start internalizing those feelings. Is the student completely removed from the print? There are a lot of ways you can interpret that. You have to analyze the types of questions the student is getting wrong, not just report a score.

The second concept under word problems is thinking in ratios. You'll find on many standardized instruments the issue of "Can the student realize that if Jane has five dollars and her parents have six dollars, and the proportion of money she has is the same as her sister...." They think in terms of ratio: this is to this as this is to this. Can a student think that way? Is the student conceptually up to that stage of development? Is the student thinking concepts in relation to each other in ratios? She may not have been taught that. How many students are actually taught to think in terms of ratios? Is it a handicap? You have to go back and see what the student was taught. In your diagnostics, maybe stop testing for a minute, talk about ratios for a minute, and see if the student can perform that. If he can't perform after you've given a little bit of instruction, after a little bit of prompting, then you might be talking about a little bit of an underlying psychological processing disorder.

Next is perception of charts and diagrams. There are the classic types of cases. The student can't follow the lines across to create the perfect spots on a grid or can't find out how tall a particular bar on a bar graph is because he can't follow the line. That's a classic kind of visual disorder as well as maybe a self-direction

organization problem. It's not just "Look at this chart and tell me how tall this bar is on the bar graph." It's "Direct yourself. Start from the bottom. Move up. See how high up the bar goes. That height is represented by this number over here on the side. Are you following it all the way over to the side?" It might not be a visual processing disorder. It might be a combination of things. Be cautious about labeling a child as a visual or auditory learner. The tasks that the student is involved in are just too complicated for anyone to make such a statement.

Word Concept Manipulation can be exemplified by signed numbers. How many of you had difficulty learning signed numbers? If you think about it, it's not the exclusive domain of those with handicapping conditions. It might be that the language of math may be very misleading. Think about adding signed numbers. If you have a "positive seven" and you add it to a "positive six," you have a "positive thirteen." You're adding. However, if you have a "positive seven" and you add it to a "negative six," you're subtracting -- but you're adding. We thrust into our instruction so many complex deviations from what our language really talks about that for us to judge a student's mathematical processing based on language is a very difficult task.

Visual/spatial functioning is another issue that's intertwined with the previous issues in terms of the integration of the visual constructs. Yes, I've run across a student who I'd say had visual processing disorders in the areas of math. The student had a head injury in the occipital lobe, was documented as being impaired, and you could tell that visual processing was way off. Use the

information from the neurologist. Sometimes it may be very helpful to determine what the etiology of some of the problems are.

(Page 13) Here is a listing of several of the diagnostic instruments that are available for math for the older students and adults. The list includes instruments above and beyond basic math so that you may observe a student's processing as time goes on rather than the student's ability to do addition, subtraction, multiplication, and division.

If you're dealing with young children, the Buehm Test of Basic Concepts is essentially vocabulary and some of the words have to do with math -- like "pair," "least," and "most." It can be very useful. There's also a book called Reading for Mathematics, a little workbook you use with children of any age, available from Richards Publishing Company, Box 66, Phoenix, NY 13135. It explains words that you usually use with addition, subtraction, fractions, etc.

We've been trying to task analyze the components of an evaluation that a school district might receive that would not sit right with the school district. That's not to say you should avoid these issues. However, certain types of comments or concepts may cause conflicts at certain points because of the constraints of the functions of the public school.

Number 3 on page 15 is an example. There are plenty of other examples. Number 3 says "She's easily distracted, has difficulty shifting, and needs one on one instruction in order to learn basic readiness skills." All of these, by the way, are direct quotes from educational evaluations. The issue of one on one instruction in public education for learning disabled students is not one that generally sits well and is not generally granted. But think about the

issue of Compensatory Ed programs, think about tutor/teachers in terms of Chapter I programs. You might find that there's a lot of one on one instruction going on in those situations. So, if you're writing your report, watch the one on one situation in special education. There's a whole world out there besides special education in terms of resources for the student that might meet the student's needs also. As you write your evaluation, watch for key words such as "maximum;" "the student should have maximum this and maximum that." Watch for "The student is a learning disabled student." We know that the issue of classification is a group decision. You come in as an outsider and do not bend a little bit or if you don't just give the information to the Committee on Special Education, you're setting up possible conflicts -- especially if you never even called the school to find out what is going on or you never reviewed the records but just viewed this child in a microcosm. Open yourselves up. Find out what's going on in the schools so your educational reports are reflective of what's going on.

Regarding public versus private assessment, disadvantages private practitioners have is that they don't always know everything that's going on in the schools from the inside. One of the advantages of doing private assessment, however, is that the parents may trust the private practitioner more than a school employee. This is not necessarily because of any particular individual in the schools. Rather, the parent is primarily afraid that the child will be tested in the school, there will be word on the record, and it will follow the child forever. We can't be overly aware of the concerns that many parents have; you can't do too much to assure them that you

are there for the benefit of the child, not to put blame and not to find some dastardly thing that is wrong and must be labeled with a red flag. Many parents see it that way. Another advantage is that we can usually set a time when we can get both parents in and the child as well to go over the results. In many cases of divorce, both parents will still come in.

To wrap up, on this itinerary for a trip and communicating the results, we feel that anyone tested should come out feeling good about the assessment. There should be something that that child, adolescent, or adult can feel good about from the experience he or she has gone through -- and it is an experience. We all know to look for strengths, not just weaknesses, and to make sure that the person tested is as aware as can be that there are strengths. Teachers and parents should look to those strengths too and not just focus in on what is wrong. The classic is the test that has ten questions and there are nine right answers and a big X next to the one wrong answer. Every teacher has probably done that at least once. But it's important to remember that those other nine are right and that everyone has strengths.

Results of any assessment should translate to the curriculum, which means writing reports that have some meaning. Don't forget the environment. A trip can be ruined because of a flat tire, but that doesn't mean that the same destination at another time in another vehicle might not be really successful and might have been the right choice after all. Keep your destination in mind and you'll reach the goals that you're seeking.

The role of the educational evaluator should be, to some degree, that of a proactive person for the student. He should be someone who

can not only identify what the strengths or weaknesses of the student are, but who can be there to be helpful to the parents and to the student. Keep that proactive role in its place because sometimes if the role is used in too strong a way, sides can be set up: parents versus school. Use the proactive role to help the student, not to set up sides. One thing we are trying to do is to change schools because a lot of people have to learn much more about students. But you have to understand that if you're looking at one student and you set up sides, you may not be helping that student in the long run. Instead, focus on the needs of the child. School districts have limitations. We really don't want to wait until school districts change; we want to have these students serviced as appropriately as possible.

Also try to look at Chapter 2 in test booklets that are printed on test instruments. Chapter 2 is usually written about norms -- you know, the chapter no one looks at. Look at it because if, for instance, you're making a statement about a six-year-old's performance on a particular subtest, the norms booklet might state that there were only ten six-year-old students who were used to create the norms for this age group. You could be quite embarrassed at a CSE meeting where someone else understands that concept. So, before you release your report, be sure you look at that infamous Chapter 2.

Regarding the issue of educational plans and remediation, you should set up some standards for the receiving teacher based upon what you've seen when you deviated once in a while from what the book says you're supposed to do. Watch the student very carefully; see how the student performs once you do give him a little bit of insight into a process; see if it clicks and if he changes in performance. If you're

too constricted and staying only with what the test says, you're going to lose what the whole testing situation is supposed to be about. Try to open up a bit. Of course, you're going to lose validation of the instrument. But, if you've reached the ceiling in a particular item of a test, that's the time to proceed a little bit more to find out what's going on with the student.

# A P P E N D I X

# *EDUCATIONAL ASSESSMENT*

# *A TOOL TO ENHANCE EDUCATION*

Samuel Fleisher, Ed.D.
Gloria P. Tannenbaum. Ph.D.

Orton Dyslexia Society
March 16, 1989

**Educational Assessment - to Enhance Education**
**Powers and pitfalls**

- **Introduction / Definition**
- **Assessing the "Whole Child"**
- **Planning an assessment battery - goals**
- **Nuances of carrying out an assessment**
- **Communicating and using results - developing a plan**

## NOTES

**Educational Assessment - to Enhance Education**
**Assessing The Whole Child**

**P**hysical

**I**ntellectual (cognitive)

**E**motional

**S**ocial

## NOTES

## Purposes of Assessment

1. Screening

2. Determining eligibility

Wrong! To add to the total picture of the child to determine eligibility.

3. Program planning

Do our assessments systematically identify the remedial needs? Or, does the receiving teacher first have to evaluate the student?

4. Monitoring student progress

Are alternative instructional approaches or materials identified so that the receiving teacher can instruct the student adequately enough to demonstrate progress?

5. Evaluating a program

We evaluate the effectiveness of a program and our instruction. The focus of our work should not be on condemning the student if the student does not demonstrate appropriate skill mastery.

**Educational Assessment - to Enhance Education**

**Assessment As A Travel Plan**

| | |
|---|---|
| **Destination** | **Educational plan for child**<br>**Accurate perception of child - by child, parents, teachers.** |
| **Itinerary** | **Choosing a battery (routes to take)**<br>**Be ready to change routes**<br>**Turnpike or sideroads**<br>**Detours**<br>**Gathering data - history, environment**<br>**Communicating results** |
| **Trip** | **Administering tests**<br>**Informal observation**<br>**Evaluating information - background test results**<br>**Informal observation** |

## NOTES

**Educational Assessment - to Enhance Education**

**Assessing Reading**

**Decoding**

**Sight word recognition**

**Oral reading**

**Silent reading**

**Comprehension - without memory**
**with memory**

**Also:**

**Vocabulary - oral**
**written**

**Listening comprehension and memory**

## NOTES

# W r i t i n g

## Types of Analyses

1. Spoken vs. Written Language Sample
2. Linguistic: Phonology, Morphology, Syntax
3. Grapheme - Phoneme Correspondence
4. Grapho - Motor Coordination

## Sample Cases

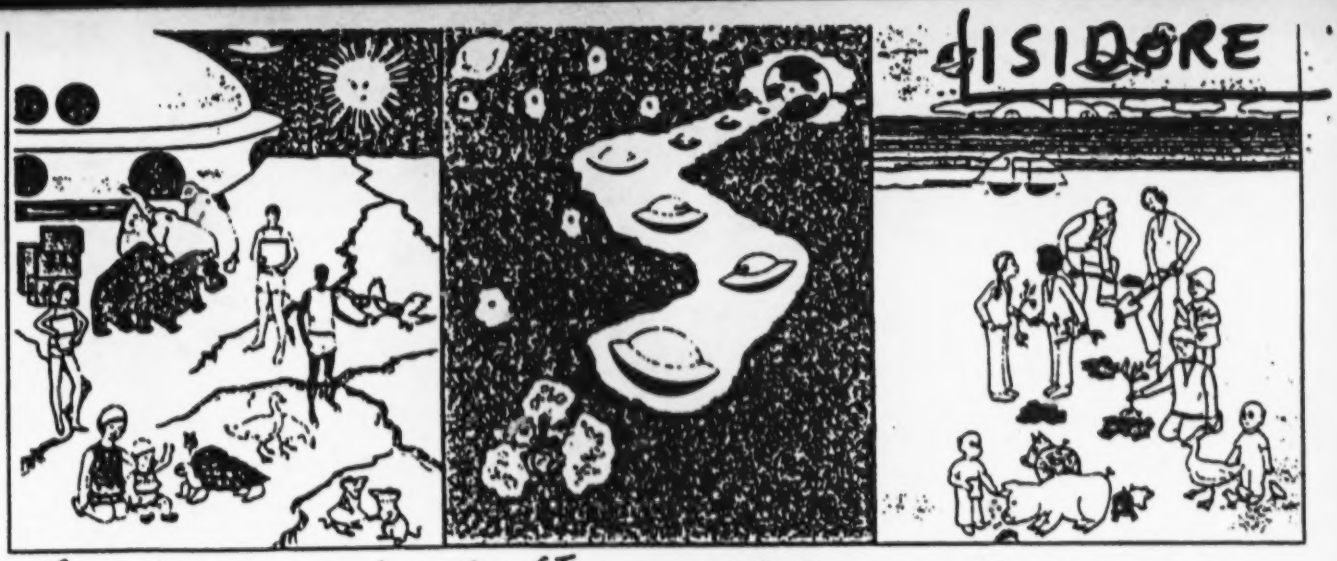
1. Isidore
2. David
3. Michael
4. Lisa

## Assessment Instruments

1. Myklebust - Picture Story Language Test - Grune & Stratton
2. TOWL - 2
3. TOAL - 2
4. DATA
5. Essentials of English Tests - AGS

## One Main Issue

How do you identify a discrepancy between achievement and potential?




A Noah's Ark 21st Century

ISIDORE

Men and women and animals leaving two by two much like Noah did in the bible leaving a dead and decaying planet to seek a new life. A new world to grow to rekindle life and hope for in hope there is life and in that comes our future. These three pictures this is what I see is most meaningful to me. To live and to suffer and to keep on trying again and again no matter what or where you have to go or do to live and go on. This is our gift to our next generation.

The ozone layer has decayed. The earth's temperature has risen tremendously. The oceans have dried up and plant life and the plant is dying slowly but surely. And the people of earth have gathered up their belongings whatever livestock is left and are fleeing in spaceships to seek out a new planet and a new life.

# DTLA-2 STUDENT RESPONSE FORM

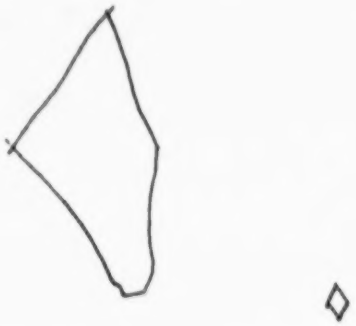
DAVID

VI. Design Reproduction

Name _____

PRACTICE

1



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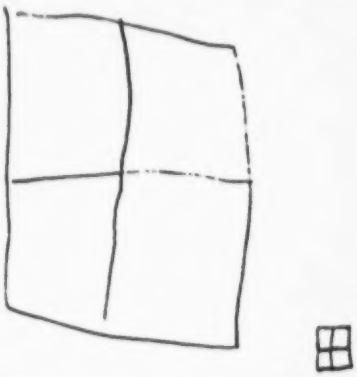
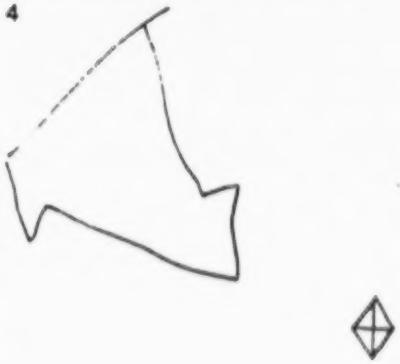
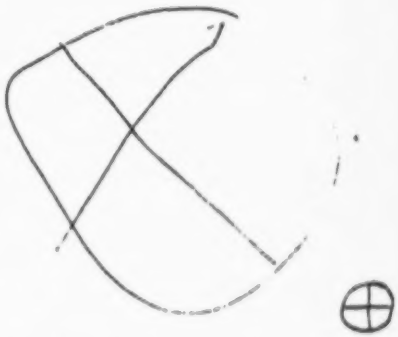


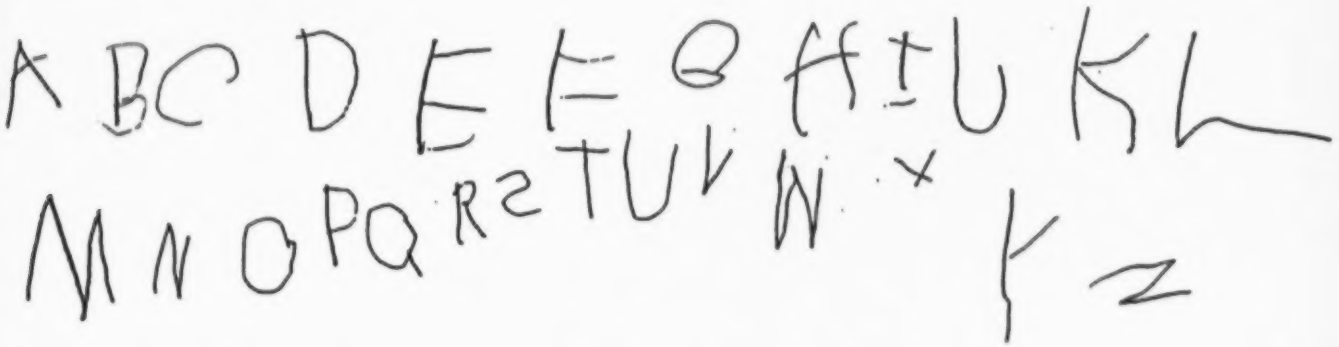
3

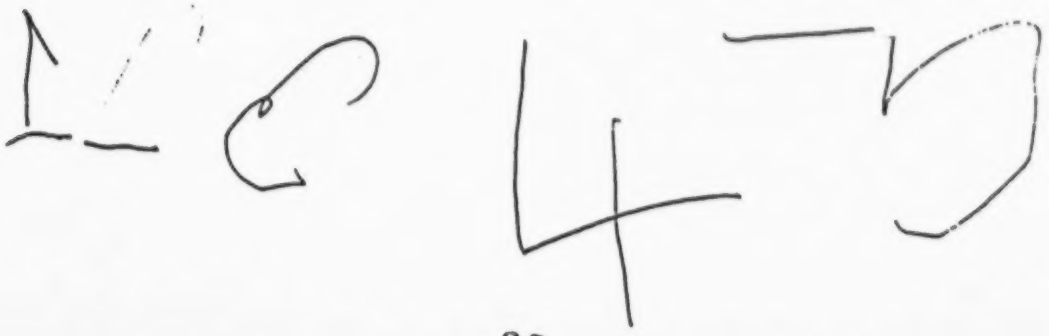
4



5







MICHAEL

My Opinion

Lyndon was a good President, ~~he~~ He fought for civil rights. He invented food stamps. That's what I like about him. Also I ~~did like he~~ didn't like when he ~~want~~ went deeper and deeper into Vietman.

I tink he should have bomb all North Vietnam.

They left from Mars. It took 3 months to get there. Beinning ends air force base it last trip for skull the sow ~~sw~~ amenl live Mars.

Hint 20 Michael

de ick de/d a & t

per dant

depen dent

im pan ding

in dent pent in/de/p a d/d e n t

pat LISA

[redacted] Plants yougly have seems and pldels. They [redacted] yougly are strate and drink water threw (there) roots. Plants ~~ydon't~~ realy horm anyonce

Some times there is anthere kind of Plant that is a fithl bet defrent the meat eating Pant is cold and it has thay's litile read tiny ha fiels. Bee our fly ever sits one it it skwrent sap on it and it gathes, oron it. Then it strts to sob it up. This Plant

41 10 1's vere

**Educational Assessment - to Enhance Education**
**Assessing Math (Elementary)**

## Concepts vs. Computation

| Concepts | Computation |
|---|---|
| Tested orally (e.g., Key Math) | Confounded by: fine motor |
| Understands ideas | rote memory visual perception |
| Allow for errors | directionality |
| Look at abstract reasoning<br>WISC-R Block Design<br>Picture Arrangement<br>Raven Progressive Matrices | |

***NOTE: Results of WISC-R Arithmetic may be very deceptive, particularly for learning disabled youngsters.***

# NOTES

## Assessing Math - The Older Child/Student, The Adult

I. Basic Math - Aside from the usual skill attainment analyis, assessing Basic Math takes on additional meanings once the child reaches the middle grades

A. Ordering - Sequencing - The Internal Clock

B. One-to-One Correspondence

(7 x 1,000)
7,000

C. Knowledge of Vocabulary

Between, more than, angle

D. Word Problems

- Applications to Real Life

- Thinking in Ratios

- Perception of Charts, Diagrams, etc.

E. Word - Concept Manipulation

- Signed $s

F. Visual-Spatial Functioning

II. Algebra, Geometry and Beyond

A. DATA - Diagnostic Achievement Test for Adolescents

- solving simple equations
- order of operations
- conversions - fractions to decimals
- signed #s
- % problems

B. Woodcock - Johnson PEB Part 2

- solving equations
- square roots
- trigonometry

C. Primary Mental Abilities Test

- approximations
- mental computations
- "tricks" for quick solutions

D. Kaufman TEA - Comprehensive

- solving simple equations
- square roots
- signed #s
- factoring
- order of operations

E. Test of Computational Process

- metric system
- weights and measurement

## A n d r e w

Subtest #4 - "The Cowboy & Horse" Subtest

The student consistently interchanged the prepositions.

## H a l l i e

Subtest #9 - "The Red & Blue" Subtest

Can the student hold a pattern of conceptualizing without throwing in one response that is inconsistent with the pattern?

## I s i d o r e

Subtest #9 - "The Red & Blue" Subtest

"I don't see it!"

## D a v i d

Subtest #9 - "The Red & Blue" Subtest

The student could not shift out of the pattern of pairs of boxes. Was the student insecure about tackling new relationships? Was the student stuck and unable to feel free enough to think his way out of the quagmire? What are the applications to school and information processing?

## M i c h a e l

Subtest #9 - "The Red & Blue" Subtest

Was unable to learn from feedback. He responded to stimulus items incorrectly even after being corrected. When he doesn't "see" it, he really doesn't see it. What are the applications to information processing in the academic world?

## S h a r o n

Subtest #4 - "The Cowboy & Horse" Subtest

This student pointed her way through the task.

Subtest #9 - "The Red & Blue" Subtest

When presented with isolated basic concepts, she performed well. However, when all basic concepts are merged into one review activity, she performed poorly. She learns quite well from verbal interaction and instruction.

1

Prompted by their concerns about Carmen's school-related difficulties, the parents sought an educational evaluation . . . Given Carmen's dysfunction in reading, supportive help designed to build fundamental reading skills would be advised. Carmen now impresses as a learning disabled youngster . . .

2

In summary, John is a highly intelligent youngster manifesting many of the symptoms of a specific learning disability in the areas of reading and spelling. It is recommended that John be classified as such . . .

3

She is easily distracted, has difficulty shifting and needs a one-on-one situation in order to learn basic readiness skills.

4

Although there is a neurologically-based language substrate underlying Chris' academic difficulties, the emotional fallout is not inconsiderable. The provision of a good tape recorder might be useful so that he need not be distracted by notetaking . . .

To parents - If he is not classified by your district as a learning disabled student, you can take the district to an impartial hearing.

5

TOLD - P

Oral Vocabulary 37th %ile

Phillip demonstrates delays in the areas of oral vocabulary . . .
RECOMMENDATIONS: 2. Speech/Language Services

6

8th Grader

Reading Comprehension = 7.2 GE
Reading Vocabulary = 6.8 GE

LAC = 68 = 2nd Grade

7

If the child is still unable to function within the large classroom situation the school should consider placing him in a small structured class where he can receive more individualized instruction.

8

A small self-contained Learning Disabilities class providing structure and support with MAXIMUM individualized instruction

9

John has experienced poor school achievement since the third grade and has managed to fail two subjects and is presently attending summer school . . . John should be placed in a resource room in the upcoming school semester.

**Educational Assessment - to Enhance Education**
**Educational Assessment Battery**

1. **Developmental and school history**
2. **Review of school records**
3. **Teacher and parent observations**
4. **Tests:** **educational achievement**
   **speech and language**
   **visual motor integration**
   **visual and auditory perception**
5. **Informal observations**

## NOTES

## SOURCES FOR ASSESSMENT MEASURES

| Source No. | |
|---|---|
| 6 | Beery Developmental Test of Visual Motor Integration |
| 1 | Bender Motor Gestalt Test |
| 7 | Boehm Test of Basic Concepts |
| 10 | Burks' Behavior Rating Scale |
| 1 | Detroit Test of Learning Aptitude |
| 7 | Durrell Diagnostic Reading Test |
| 8 | Gates McGinitie Reading Test - Vocabular, Comprehension |
| 5 | Gray Oral Reading Tests - Revised |
| 1 | Kaufman Test of Educational Achievement (KTEA) |
| 1 | Key Math Diagnostic Arithmetic Test - Revised |
| 8 | Nelson-Denny Reading Test |
| 1 | Peabody Picture Vocabulary Test - Revised |
| 9 | SEARCH |
| 4 | Slingerland Screening Tests |
| 2 | Spache Diagnostic Reading Scales |
| 3 | Test of Computational Processes |
| 1 | Test of Written Language (TOWL-R) |
| 10 | Wepman Test of Auditory Discrimination |
| 5 | Wide Range Achievement Test - Revised (WRAT-R) |
| 1 | Woodcock Reading Mastery Test - Revised |
| 3 | Woodcock Johnson Psychoeducational Test Battery-Revised |

| NO. | SOURCE |
|---|---|
| 1 | AGS (American Guidance Service) (800) 328-2560 |
| 2 | C & B/McGraw-Hill (800) 538-9547 |
| 3 | DLM Teaching Resources (800) 527-4747 |
| 4 | Educators Publishing Service (800) 225-5750 |
| 5 | Jastuk Associates (800) 221-WRAT |
| 6 | Modern Curriculum Press (800) 321-3106 |
| 7 | Psychological Corporation (800) 228-0752 |
| 8 | Riverside Publishing Company (800) 323-9540 |
| 9 | Walker & Co. (800) AT-WALKER |
| 10 | Western Pshchological Services (800) 222-2670 |